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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/552,485	03/19/2008	Yoshimasa Sakamoto	082368-006500US	1941
20350	7590	06/30/2010	EXAMINER	
TOWNSEND AND TOWNSEND AND CREW, LLP TWO EMBARCADERO CENTER EIGHTH FLOOR SAN FRANCISCO, CA 94111-3834		MACFARLANE, STACEY NEE		
		ART UNIT		PAPER NUMBER
		1649		
		MAIL DATE		DELIVERY MODE
		06/30/2010		PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/552,485	SAKAMOTO ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	STACEY MACFARLANE	1649	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) Responsive to communication(s) filed on 4/22/2010.  
 2a) This action is **FINAL**.                    2b) This action is non-final.  
 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) Claim(s) 1-44 is/are pending in the application.  
 4a) Of the above claim(s) 1,3-17,20-22 and 26-44 is/are withdrawn from consideration.  
 5) Claim(s) \_\_\_\_\_ is/are allowed.  
 6) Claim(s) 2, 18, 19, 23-25 is/are rejected.  
 7) Claim(s) \_\_\_\_\_ is/are objected to.  
 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) The specification is objected to by the Examiner.  
 10) The drawing(s) filed on 06 October 2005 is/are: a) accepted or b) objected to by the Examiner.  
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
 a) All    b) Some \* c) None of:  
 1. Certified copies of the priority documents have been received.  
 2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____ .                                    |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date <u>See Continuation Sheet</u> . | 5) <input type="checkbox"/> Notice of Informal Patent Application |
|  | 6) <input type="checkbox"/> Other: _____ .                        |

Continuation of Attachment(s) 3). Information Disclosure Statement(s) (PTO/SB/08), Paper No(s)/Mail Date :11/28/06;3/23/2007;4/10/2008;9/10/2009.

**DETAILED ACTION**

***Election/Restrictions***

1. Applicant's election with traverse of Group VII and SEQ ID NO: 1 in the reply filed on April 22, 2010 is acknowledged. The traversal is on the ground(s) that the claims of Groups VII, VIII, IX, XIX, XX, and XXI share a special technical feature, namely, a dopaminergic neuron proliferative progenitor cell which is selected using a Lrp4 polynucleotide probe. This is not found persuasive because the polynucleotide probe encoding Lrp4/Cortin was well known in the art prior to filing and techniques for detection using such probe were, likewise, known in the art. Additionally, the claims that Applicant has asked to be examined together (claims 2 to 4, 12, 15-20, 23-25, and 39-44) are drawn to patentably distinct inventions that do not meet the requirements of 37 C.F.R. § 1.475 (a) and (b) as being drawn to only one of the following combinations of categories:

- (1) A product and a process specially adapted for the manufacture of said product; or
- (2) A product and process of use of said product; or
- (3) A product, a process specially adapted for the manufacture of the said product, and a use of the said product; or
- (4) A process and an apparatus or means specifically designed for carrying out the said process; or
- (5) A product, a process specially adapted for the manufacture of the said product, and an apparatus or means specifically designed for carrying out the said process.

Thus, the special technical feature that is common among the Groups does not make a contribution over the prior art.

The requirement is still deemed proper and is therefore made FINAL.

2. Claims 1, 3-1, 20-22 and 26-44 are withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected inventions, there being no allowable generic or linking claim. Applicant timely traversed the restriction (election) requirement in the reply filed on April 22, 2010.
3. Claims 2, 18, 19 and 23-25 in so far as they read upon SEQ ID NO: 1, will be examined upon the merits in the instant Office action.

***Priority***

4. Acknowledgment is made of applicant's claim for foreign priority based on applications filed in Japan on October 29, 2004 and July 22, 2004. It is noted, however, that applicant has not filed a certified copy of the 2004-213743 application as required by 35 U.S.C. 119(b).

***Claim Objections***

5. Claim 2 is objected to as depending from Claim 1, which is non-elected. Appropriate correction is required.

***Specification***

6. The disclosure is objected to because it contains an embedded hyperlink and/or other form of browser-executable code. Applicant is required to delete the embedded hyperlink and/or other form of browser-executable code. See MPEP § 608.01. Specifically, paragraphs [0047], [0051], [0121] and [0131] contain either embedded hyperlink or executable code.

***Claim Rejections - 35 USC § 112***

7. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

8. Claim 18 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 18 is indefinite in that it recites a method comprising the step of contacting a cell with a “polynucleotide which hybridizes under stringent conditions with a first polynucleotide consisting of” the instantly-elected SEQ ID NO: 1. While indefiniteness is decided in light of the specification, here, the specification [0050] provides only examples of conditions with varying stringency, but the claim is unclear absent a statement of the conditions under which the hybridization reaction is performed. Nucleic acids that will hybridize under some hybridization conditions will not necessarily hybridize under different conditions. The stringent hybridization conditions described in

the disclosure are merely exemplary and do not define the conditions required by the claim. Without providing a precise set of hybridization conditions, in the claim or the specification, the metes and bounds of the claimed isolated nucleic acid molecule cannot be defined.

***Claim Rejections - 35 USC § 102***

9. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

10. Claims 2, 18 and 19 are rejected under 35 U.S.C. 102(a) as being anticipated by Zhang et al. J Biol Chem, 289(19):19115-19126, January 28, 2005 as evidence by EMBL/GeneBank Accession No. AB013874, November 11, 1989.

Applicant cannot rely upon the foreign priority papers to overcome this rejection because a translation of said papers has not been made of record in accordance with 37 CFR 1.55. See MPEP § 201.15.

Claim 2 is drawn to a method for selecting a dopaminergic progenitor cell comprising the sole step of contacting a cell sample with a polynucleotide probe of the elected SEQ ID NO: 1. Dependent claims 18, 19 recite the method further comprising contact with a second polynucleotide probe that hybridizes to SEQ ID NO: 1 under



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Db	241	TTGGGGACCCGTGGCTTCCTCTCCGGTCCAAGTTCCAGGCCTCCGGCAGCTGGAAGGAT	300
Qy	301	TGCTTTGGAGCCCCCCTGCTCCAGACGTCTTGAGAGCACAGCAGGAGCGGGAGGGC	360
Db	301	TGCTTTGGAGCCCCCCTGCTCCAGACGTCTTGAGAGCACAGCAGGAGCGGGAGGGC	360
Qy	361	TGTCCTCAGAACAGCTGGTACTGCTAACTTGCTGCGCTTCCTGCTGGTGCTCATCCCC	420
Db	361	TGTCCTCAGAACAGCTGGTACTGCTAACTTGCTGCGCTTCCTGCTGGTGCTCATCCCC	420
Qy	421	TGCATCTGCGCCCTCATCGTGCTGGCCATCCTGCTGTCCTTGTTGGAACATTAAAA	480
Db	421	TGCATCTGCGCCCTCATCGTGCTGGCCATCCTGCTGTCCTTGTTGGAACATTAAAA	480
Qy	481	AGGGTTTATTCAAATCAAATGACAGTGAACCTTGGTCACTGATGGGAAGCTCGAGTG	540
Db	481	AGGGTTTATTCAAATCAAATGACAGTGAACCTTGGTCACTGATGGGAAGCTCGAGTG	540
Qy	541	CCTGGTGTATTCTGTAAATACAGTTATTATGAGAACACAGGGCGCCCTCTGCC	600
Db	541	CCTGGTGTATTCTGTAAATACAGTTATTATGAGAACACAGGGCGCCCTCTGCC	600
Qy	601	CCCAGCCAGTCCACTCCAGCCTGGACACCGAGAGCTCCTCTCCAGAGGACCAGTCAC	660
Db	601	CCCAGCCAGTCCACTCCAGCCTGGACACCGAGAGCTCCTCTCCAGAGGACCAGTCAC	660
Qy	661	AGGAACACAAGCACCTGCATGAACATCACTCACAGCCAGTGTCAAATTGCCCTACCAC	720
Db	661	AGGAACACAAGCACCTGCATGAACATCACTCACAGCCAGTGTCAAATTGCCCTACCAC	720
Qy	721	AGCACGTTGGCACCTCTTGCCATTGTCAAAAACATGGACATGGAGAAGTTCTCAAG	780
Db	721	AGCACGTTGGCACCTCTTGCCATTGTCAAAAACATGGACATGGAGAAGTTCTCAAG	780
Qy	781	TTCTTCACGTACCTCCATCGCCTCAGTTGCTATCAACATATCCTGCTTCGGCTGTAGC	840
Db	781	TTCTTCACGTACCTCCATCGCCTCAGTTGCTATCAACATATCCTGCTTCGGCTGTAGC	840
Qy	841	CTCGCCTTCCCTGAGTGCCTGTTGATGGCGATGACAGGCATGGCTTCTACCCGTAGA	900
Db	841	CTCGCCTTCCCTGAGTGCCTGTTGATGGCGATGACAGGCATGGCTTCTACCCGTAGA	900
Qy	901	TCTTTCTGTGAGGCTGCAAAAGAAGGATGCGAATCTGCTGGGAATGGTAACCTCC	960
Db	901	TCTTTCTGTGAGGCTGCAAAAGAAGGATGCGAATCTGCTGGGAATGGTAACCTCC	960
Qy	961	TGGCCGGATTCCCTCAGATGCTCTCAGTTAGGGACCACACTGAGACTAACAGCAGTGTC	1020
Db	961	TGGCCGGATTCCCTCAGATGCTCTCAGTTAGGGACCACACTGAGACTAACAGCAGTGTC	1020
Qy	1021	AGAAAGAGCTGCTTCACTGCAGCAGGAACATGGAAAGCAATCACTCTGTGGAGGGGC	1080
Db	1021	AGAAAGAGCTGCTTCACTGCAGCAGGAACATGGAAAGCAATCACTCTGTGGAGGGGC	1080
Qy	1081	GAGAGCTTCCTGTGATGCGGGCTCGCGTCCCCAAGAACGCTGCAGTGTAAACGGCTAT	1140
Db	1081	GAGAGCTTCCTGTGATGCGGGCTCGCGTCCCCAAGAACGCTGCAGTGTAAACGGCTAT	1140
Qy	1141	AATGACTGTGATGACTGGAGCGACGGCGATTGCAACTGCAGCAAGGATCTGTTCAC	1200
Db	1141	AATGACTGTGATGACTGGAGCGACGGCGATTGCAACTGCAGCAAGGATCTGTTCAC	1200
Qy	1201	TGTGGCACAGGAAGTGCCTCCACTACAGCCTTTGTTGATGGGTACGATGACTGTGGG	1260
Db	1201	TGTGGCACAGGAAGTGCCTCCACTACAGCCTTTGTTGATGGGTACGATGACTGTGGG	1260
Qy	1261	GACCCGAGTGACGAGCAAAACTGTGATTGTAATCTCACAAAAGAGCATCGCTGTGGAGAT	1320

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Db	1261	GACCGAGTGACGAGCAAAACTGTGATTGTAATCTCACAAAAGAGCATCGCTGTGGAGAT	1320
Qy	1321	GGGCGCTGCATTGCGCTGAGTGGGTGCGATGGGACCATGACTGTGTGGACAAGTCT	1380
Db	1321	GGGCGCTGCATTGCGCTGAGTGGGTGCGATGGGACCATGACTGTGTGGACAAGTCT	1380
Qy	1381	GATGAGGTCACTGCTCTTGTACAGCCAGGGCTGGTGAATGCACAAGTGGACAGTGC	1440
Db	1381	GATGAGGTCACTGCTCTTGTACAGCCAGGGCTGGTGAATGCACAAGTGGACAGTGC	1440
Qy	1441	ATCCCTAGCACCTCCAGTGTGATGGGACGAAGACTGTAAGGATGGGAGTGACGAGGAG	1500
Db	1441	ATCCCTAGCACCTCCAGTGTGATGGGACGAAGACTGTAAGGATGGGAGTGACGAGGAG	1500
Qy	1501	AACTGCAGTGACAGTCAGACGCCATGTCCAGAAGGAGAACAGGGATGCTTGGCAGTTCC	1560
Db	1501	AACTGCAGTGACAGTCAGACGCCATGTCCAGAAGGAGAACAGGGATGCTTGGCAGTTCC	1560
Qy	1561	TGCGTCAATCCTGTGCTGGTAGCTCTGTGTGACTCAGACAGCAGCCTGAGTAACGTGC	1620
Db	1561	TGCGTCAATCCTGTGCTGGTAGCTCTGTGTGACTCAGACAGCAGCCTGAGTAACGTGC	1620
Qy	1621	AGTCAATGTGAGCCCACACTTGGAACTCTGCATGAATTGCTCTACAACCATAACAT	1680
Db	1621	AGTCAATGTGAGCCCACACTTGGAACTCTGCATGAATTGCTCTACAACCATAACAT	1680
Qy	1681	TATCCAAATTACCTTGGCCACAGAACTCAAAAGGAAGCGTCCATCAGCTGGAGTCATCC	1740
Db	1681	TATCCAAATTACCTTGGCCACAGAACTCAAAAGGAAGCGTCCATCAGCTGGAGTCATCC	1740
Qy	1741	CTTTCCCTGCCCTTGTACAAACCAACTGTTACAAATACCTCATGTTTCGCTTGCACC	1800
Db	1741	CTTTCCCTGCCCTTGTACAAACCAACTGTTACAAATACCTCATGTTTCGCTTGCACC	1800
Qy	1801	ATTTGGTCCAAGTGTGATGTGAATACAGGACAACGCATCCCGCTTGCAGACTCCTG	1860
Db	1801	ATTTGGTCCAAGTGTGATGTGAATACAGGACAACGCATCCCGCTTGCAGACTCCTG	1860
Qy	1861	TGTGAGCACTCCAAAGAGCGCTGTGAGTCTGGGAATCGTGGCCTGCAGTGGCCT	1920
Db	1861	TGTGAGCACTCCAAAGAGCGCTGTGAGTCTGGGAATCGTGGCCTGCAGTGGCCT	1920
Qy	1921	GAAGACACCGACTGCAATCAATTCCAGAGGAAAGTTCAGACAATCAAACCTGCCTCCTG	1980
Db	1921	GAAGACACCGACTGCAATCAATTCCAGAGGAAAGTTCAGACAATCAAACCTGCCTCCTG	1980
Qy	1981	CCCAATGAAGATGTGGAAGAATGCTCTCCGAGTCACCTCAATGCCGCTCGGGACATGC	2040
Db	1981	CCCAATGAAGATGTGGAAGAATGCTCTCCGAGTCACCTCAATGCCGCTCGGGACATGC	2040
Qy	2041	GTTCTGGCTCCAGGAGATGTGACGGCCAGGCTGACTGTGACGACGACAGTGACGAGGAG	2100
Db	2041	GTTCTGGCTCCAGGAGATGTGACGGCCAGGCTGACTGTGACGACGACAGTGACGAGGAG	2100
Qy	2101	AACTGTGGTTGAAAGAGAGAGCTTTGGGAATGTCCATTAAAGCAATGTCTGAAG	2160
Db	2101	AACTGTGGTTGAAAGAGAGAGCTTTGGGAATGTCCATTAAAGCAATGTCTGAAG	2160
Qy	2161	CATACATTAATCTGCATGGTTCCAGATTGTCAGACAGTATGGATGAAAAAAACTGC	2220
Db	2161	CATACATTAATCTGCATGGTTCCAGATTGTCAGACAGTATGGATGAAAAAAACTGC	2220
Qy	2221	TCATTTGCCAAGACAATGAGCTGGAATGTGCCAACATGAGTGTGCCCCGTGACCTT	2280
Db	2221	TCATTTGCCAAGACAATGAGCTGGAATGTGCCAACATGAGTGTGCCCCGTGACCTT	2280

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Qy	2281	TGGTGCACGGATGGGTCGACTGCTCAGACAGTCTGATGAATGGGCTGTGACCCCTC	2340
Db	2281	TGGTGCACGGATGGGTCGACTGCTCAGACAGTCTGATGAATGGGCTGTGACCCCTC	2340
Qy	2341	TCTAAAAATGGGAACCTCCTCCTATTGCTGACTGTTCACAAATGCAAAGGAACACCAC	2400
Db	2341	TCTAAAAATGGGAACCTCCTCCTATTGCTGACTGTTCACAAATGCAAAGGAACACCAC	2400
Qy	2401	GTGTGTGCTGACGGCTGGCGGGAGACGTTGAGTCAGCTGGCCTGCAAGCAGATGGTTA	2460
Db	2401	GTGTGTGCTGACGGCTGGCGGGAGACGTTGAGTCAGCTGGCCTGCAAGCAGATGGTTA	2460
Qy	2461	GGAGAACCGCTGTGACCAAGCTGATCCCAGGACAGGAAGGCCAGCAGTGGCTGAGGTTG	2520
Db	2461	GGAGAACCGCTGTGACCAAGCTGATCCCAGGACAGGAAGGCCAGCAGTGGCTGAGGTTG	2520
Qy	2521	TACCCCAACTGGAGAACATCTCAATGGGACCACCTTGCAGGAGCTGCTGGTATAAGGCAC	2580
Db	2521	TACCCCAACTGGAGAACATCTCAATGGGAGCACCTTGCAAGGAGCTGCTGGTATAAGGCAC	2580
Qy	2581	TCCTGCCAACGAGAAGTGAGATTCCCTCTGTGCTCCAAGCAAGACTGTGGCCGCC	2640
Db	2581	TCCTGCCAACGAGAAGTGAGATTCCCTCTGTGCTCCAAGCAAGACTGTGGCCGCC	2640
Qy	2641	CCTGCTGCCGAATGAACAAGAGGATCCTGGGGTCGGACTAGTCGCTCTGGAGGTGG	2700
Db	2641	CCTGCTGCCGAATGAACAAGAGGATCCTGGGGTCGGACTAGTCGCTCTGGAGGTGG	2700
Qy	2701	CCGTGGCAGTGCTCTGCAGAGTGAACCCAGTGGACATATCTGTGGCTGTGCTCTCATT	2760
Db	2701	CCGTGGCAGTGCTCTGCAGAGTGAACCCAGTGGACATATCTGTGGCTGTGCTCTCATT	2760
Qy	2761	GCCAAGAACGTGGTCTGACAGTTGCCATTGCTTGAAGGGAGAGAACGCTGATGTT	2820
Db	2761	GCCAAGAACGTGGTCTGACAGTTGCCATTGCTTGAAGGGAGAGAACGCTGATGTT	2820
Qy	2821	TGGAAAGTGGTATTGGCATAAACAAACCTGGACCATCCATCAGGCTCATGCAGACCCGC	2880
Db	2821	TGGAAAGTGGTATTGGCATAAACAAACCTGGACCATCCATCAGGCTCATGCAGACCCGC	2880
Qy	2881	TTTGTGAAGACCACCTGCTACATCCCGTTACAGTCGAGCAGTGGTAGACTATGATATC	2940
Db	2881	TTTGTGAAGACCACCTGCTACATCCCGTTACAGTCGAGCAGTGGTAGACTATGATATC	2940
Qy	2941	AGCGTGGTGGAGCTGAGCGATGATATCAATGAGAACGCTACGTGAGACCTGTCTGCCTA	3000
Db	2941	AGCGTGGTGGAGCTGAGCGATGATATCAATGAGAACGCTACGTGAGACCTGTCTGCCTA	3000
Qy	3001	CCCAGTCCGGAGGAGTATCTAGAACCAAGACATCGTACTGCTACATCACAGGCTGGGCCAC	3060
Db	3001	CCCAGTCCGGAGGAGTATCTAGAACCAAGACATCGTACTGCTACATCACAGGCTGGGCCAC	3060
Qy	3061	ATGGGCAATAAAATGCCCTTAAGCTGCAGGAGGGAGAGGTCCGATTATCCCTCTGGAG	3120
Db	3061	ATGGGCAATAAAATGCCCTTAAGCTGCAGGAGGGAGAGGTCCGATTATCCCTCTGGAG	3120
Qy	3121	CAGTGCCAGTCCTATTGACATGAAGACCACCAATCGGATGATCTGTGCTGGCTAT	3180
Db	3121	CAGTGCCAGTCCTATTGACATGAAGACCACCAATCGGATGATCTGTGCTGGCTAT	3180
Qy	3181	GAGTCTGGCACCGTGGACTCCTGCATGGGAGACAGCGGTGGCCTCTGGTTTGTGAACGA	3240
Db	3181	GAGTCTGGCACCGTGGACTCCTGCATGGGAGACAGCGGTGGCCTCTGGTTTGTGAACGA	3240
Qy	3241	CCCGGAGGACAGTGGACATTATTGGTTAACATGGGCTCCGTCTGCTTTCCAAA	3300
Db	3241	CCCGGAGGACAGTGGACATTATTGGTTAACATGGGCTCCGTCTGCTTTCCAAA	3300

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Qy 3301 GTTCTGGGACCTGGAGTGTACAGCAATGTGTCTACTTGTGGCTGGATTGAAAGACAA 3360  
|||  
Db 3301 GTTCTGGGACCTGGAGTGTACAGCAATGTGTCTACTTGTGGCTGGATTGAAAGACAA 3360  
  
Qy 3361 ATATATATCCAGACCTTCTCCAAAAGAAATCCAAGGATAATCAGAGACTTGTGGGA 3420  
|||  
Db 3361 ATATATATCCAGACCTTCTCCAAAAGAAATCCAAGGATAATCAGAGACTTGTGGGA 3420  
  
Qy 3421 AACCTACATGGAGAATGACCCTCTGAAACAGAACAGCTTGCTGCCAGAGCTGTACGAAC 3480  
|||  
Db 3421 AACCTACATGGAGAATGACCCTCTGAAACAGAACAGCTTGCTGCCAGAGCTGTACGAAC 3480  
  
Qy 3481 AGCGTTCACGGACAGGACGCTAACATGCACCGCAAGATCTCTCTGTTGTGCTAGA 3540  
|||  
Db 3481 AGCGTTCACGGACAGGACGCTAACATGCACCGCAAGATCTCTCTGTTGTGCTAGA 3540  
  
Qy 3541 TGAGTTTACTCAGGTTAACATCTCTTCAACATTATCATTATTAAATTGATGAATCCT 3600  
|||  
Db 3541 TGAGTTTACTCAGGTTAACATCTCTTCAACATTATCATTATTAAATTGATGAATCCT 3600  
  
Qy 3601 TTTAAAAGCACAGAGCAAAGTAGGTTTGTATTGCTAGGCTAACCTGAAATGTAGTG 3660  
|||  
Db 3601 TTTAAAAGCACAGAGCAAAGTAGGTTTGTATTGCTAGGCTAACCTGAAATGTAGTG 3660  
  
Qy 3661 TGCAATTACCAACCCATAGAGACATTGGAGCTCTAGGTAACAAGTTATAGAAAGCTCC 3720  
|||  
Db 3661 TGCAATTACCAACCCATAGAGACATTGGAGCTCTAGGTAACAAGTTATAGAAAGCTCC 3720  
  
Qy 3721 TTTTATTACTACTACAAGACACACAGGAGATAACGCTGACTGATCTCCAGTTCTGCT 3780  
|||  
Db 3721 TTTTATTACTACTACAAGACACACAGGAGATAACGCTGACTGATCTCCAGTTCTGCT 3780  
  
Qy 3781 TAAGCCCAGTGGCTTAGGGGCACATTCAGAACACTGATCTGGAGACTGGTTAACCTT 3840  
|||  
Db 3781 TAAGCCCAGTGGCTTAGGGGCACATTCAGAACACTGATCTGGAGACTGGTTAACCTT 3840  
  
Qy 3841 GTAGAAAGCCAAGAGAATATATATGCTTTATTACTCTACTCTAAATAACTTG 3900  
|||  
Db 3841 GTAGAAAGCCAAGAGAATATATATGCTTTATTACTCTACTCTAAATAACTTG 3900  
  
Qy 3901 AAGAAATCATGAAAGACAGAGAAAGGACCCACAGTGTGATCTAGACAGTTGAAAGTGCA 3960  
|||  
Db 3901 AAGAAATCATGAAAGACAGAGAAAGGACCCACAGTGTGATCTAGACAGTTGAAAGTGCA 3960  
  
Qy 3961 AGAATGTAAAATTCTCTAGCCAACCAAACACTAACACTCTGAAGTAAGTAGAATTCTATCCT 4020  
|||  
Db 3961 AGAATGTAAAATTCTCTAGCCAACCAAACACTAACACTCTGAAGTAAGTAGAATTCTATCCT 4020  
  
Qy 4021 TTCTGTATTCAAATTAAAGCTAAATCTCCACCAAGATTGTTCCCGTTACTGGAAATT 4080  
|||  
Db 4021 TTCTGTATTCAAATTAAAGCTAAATCTCCACCAAGATTGTTCCCGTTACTGGAAATT 4080  
  
Qy 4081 CGGAGTATGCACTTAGATGACTGTGATGTCAAAAGCCAGGTCAATCCTTGAGGAATAA 4140  
|||  
Db 4081 CGGAGTATGCACTTAGATGACTGTGATGTCAAAAGCCAGGTCAATCCTTGAGGAATAA 4140  
  
Qy 4141 TTTGTTGCTTATGTGGGAATGAATAAGAATCTTCCATTCCGCAAAACACACAAATTAA 4200  
|||  
Db 4141 TTTGTTGCTTATGTGGGAATGAATAAGAATCTTCCATTCCGCAAAACACACAAATTAA 4200  
  
Qy 4201 AAAGGAGAAAAAAATTAAACATTCCACACCCAAATTAAATTCTGAAAATTAGTCTGCT 4260  
|||  
Db 4201 AAAGGAGAAAAAAATTAAACATTCCACACCCAAATTAAATTCTGAAAATTAGTCTGCT 4260  
  
Qy 4261 TGTATTACCCAAAACAGAAAAGTTACAGAAATATATTCAAAGTGCAGCAAAATGTTGC 4320  
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Db      4261 TGTATTCACCCAAAACAGAAAAGTTACAGAAATATATTCAAAAGTCAGCAAAATGTTGC 4320
Qy      4321 ATGGAGTATAAACATTGCAATTTCCTCATGATGTCACATCCGTATTGCCAT 4380
Db      4321 ATGGAGTATAAACATTGCAATTTCCTCATGATGTCACATCCGTATTGCCAT 4380
Qy      4381 TTGCCTCATTGATAATTAAACTAAATTAAAGGATGCTTTAAGCACTGGGCCACTTA 4440
Db      4381 TTGCCTCATTGATAATTAAACTAAATTAAAGGATGCTTTAAGCACTGGGCCACTTA 4440
Qy      4441 TGGGAATCAATTCCCAAAGCAATTAGTGGTTACAAGTATTTTCCACTAAAAAGTTTC 4500
Db      4441 TGGGAATCAATTCCCAAAGCAATTAGTGGTTACAAGTATTTTCCACTAAAAAGTTTC 4500
Qy      4501 AAAACACAAACCTTCATACTAAATTAAATTAGCCAGACATGAACATGAAATG 4560
Db      4501 AAAACACAAACCTTCATACTAAATTAAATTAGCCAGACATGAACATGAAATG 4560
Qy      4561 CCTTTTGAAACAAGTAGGATGCACTGTTAAACTCACCAGCAACCAAAGTGCCTCAGTAT 4620
Db      4561 CCTTTTGAAACAAGTAGGATGCACTGTTAAACTCACCAGCAACCAAAGTGCCTCAGTAT 4620
Qy      4621 TGCTTACAGGGACTACCTGCAATTATATGTGTATTTGTACTCTTTCTAGATAGTT 4680
Db      4621 TGCTTACAGGGACTACCTGCAATTATATGTGTATTTGTACTCTTTCTAGATAGTT 4680
Qy      4681 CAAATGAAACATTGTTCAACCCCTATTCTCCATGTTGTCACCTCTGCTGGAAAT 4740
Db      4681 CAAATGAAACATTGTTCAACCCCTATTCTCCATGTTGTCACCTCTGCTGGAAAT 4740
Qy      4741 TTGTTACAAAGTGTGTAGCAAATGATTGTACTGCGGTCAAGGACTATATGAAGGTTAG 4800
Db      4741 TTGTTACAAAGTGTGTAGCAAATGATTGTACTGCGGTCAAGGACTATATGAAGGTTAG 4800
Qy      4801 GACCATCGGGTCGGTTTGTATAATTGGCACATAATTAAATAAAATTTTAGCAT 4860
Db      4801 GACCATCGGGTCGGTTTGTATAATTGGCACATAATTAAATAAAATTTTAGCAT 4860
Qy      4861 TGGG 4864
Db      4861 TGGG 4864

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11. Claims 2, 18, and 19 23-25 are rejected under 35 U.S.C. 102(a) as being anticipated by Ono et al., WO 2004/065599, published August 5, 2004, English translation provided.

Applicant cannot rely upon the foreign priority papers to overcome this rejection because a translation of said papers has not been made of record in accordance with 37 CFR 1.55. See MPEP § 201.15.

Claims 2, 18, 19 and 23-25 are drawn to a method for selecting a dopaminergic progenitor cell comprising the sole step of contacting a cell sample with a polynucleotide

probe of the elected SEQ ID NO: 1, further comprising contact with a second polynucleotide probe that hybridizes to SEQ ID NO: 1 under stringent conditions; wherein said second probe is at least 15 nucleotides; further comprising culturing the selected cell and selecting postmitotic cells.

The Ono prior art teaches methods for isolating specific genes at each mature phase from a precursor cell to a dopamine production neuron (Translation, page 2, claim 7). The reference specifically teaches a process in which a cell sample is contacted with a polypeptide that is identical to SEQ ID NO: 1 (SEQ ID NO: 1 of the reference), which encodes the murine Lrp4 polypeptide, further comprising culturing the precursor cell, and selecting cells by using a marker that indicates cell division has stopped (Translation, page 6). The reference reveals that polynucleotide probes that may be used can be double stranded cDNA or RNA and can include complementary base sequences (Id, page 7) that hybridize under stringent conditions that are outlined on page 26 of the translated disclosure. The polynucleotide may contain 15 continuous bases and discloses probes that are 15-100 bases and more preferably 15-35 bases (Id, page 9). Thus, the active step required by the method of the instant claims fail to distinguish over those of the methods disclosed within the prior art. Claims 2, 18, 19 and 23-25 are anticipated by the reference.

12. Claims 2, 18 and 19 are rejected under 35 U.S.C. 102(b) as being anticipated by Morser et al., WO 1999/64608, published December 16, 1999, filed June 4, 1999.

The Morser et al. prior art teaches methods comprising contacting cell and tissue samples with nucleic acid probes against the human corin allele (SEQ ID NO: 1 of the reference, page 13) which has 99.8 local base similarity to SEQ ID NO: 1 of the instant claims (see alignment below). The reference also teaches methods comprising nucleic acid probes that are complementary to and hybridize to the corin sequence under stringent conditions (pages 15-16). The reference provides guidance for oligonucleotide probes for methods comprising contacting cell samples (pages 19-20), And specifically teaches said oligonucleotide probes to be about 10-200, 12-100 or preferably 12-50, 12-25, 14-16, or at least about 15 nucleotides in length (page 20 lines 16-18). Given the considerable homology between the corin sequence and SEQ ID NO: 1 of the claims, and the breadth of the claims as encompassing any polynucleotide probe or a probe of at least 15 bases in length, then the method of the instant claims fails to distinguish over the methods taught by the prior art., Claims 2, 18 and 19 are anticipated by the reference.

Best Local Similarity 99.8%;  
Matches 3537; Conservative 0; Mismatches 8; Indels 0; Gaps 0;

Qy	11	GGCAGACGGTCCCTCACTCCTGTGGCTTGGCGTCGGAGACGCTGGCAGTCATGGCAGGG	70
Db	3	GGCAGACGGTCCCTCACTCCTGTGGCTTGGCGTCGGAGACGCTGGCAGTCATGGCAGGG	62
Qy	71	TTCCTTCAGCGTTGGTCAGCTCCGTGCGGAGAGCCCGCTGCTCTTGTCCCTGGCGAT	130
Db	63	TTCCTTCAGCGTTGGTCAGCTCCGTGCGGAGAGCCCGCTGCTCTTGTCCCTGGCGAT	122
Qy	131	GCTACCTCTCCTGCAGAGTCCCTCAACCACCGCCCTCCGTGACTGAACGGTCTGGCT	190
Db	123	GCTACCTCTCCTGCAGAGTCCCTCAACCACCGCCCTCCGTGACTGAACGGTCTGGCT	182
Qy	191	GCGCGGGGGTTCCGGGGAGACTGCAGGTGGAGGCCGTCGGACCCGGCCCTTGGGACCC	250
Db	183	GCGCGGGGGTTCCGGGGAGACTGCAGGTGGAGGCCGTCGGACCCGGCCCTTGGGACCC	242
Qy	251	GTGGCTCCTCTCCGGTCCAAGTCCAGGCTCCGGCAGCTGGAAGGATTGCTTGAG	310
Db	243	GTGGCTCCTCTCCGGTCCAAGTCCAGGCTCCGGCAGCTGGAAGGATTGCTTGAG	302
Qy	311	CCCCGCCTGCTCCAGACGTCTTGAGAGCAGACAGGAGCGTGGCGAGGGCTGTCCAGA	370

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Db	303	CCCCGCCTGCTCCAGACGTCTTGAGAGCAGACAGGAGCGGGCGAGGGCTGTCCCTCAGA	362
Qy	371	AGCTGGTGAECTGCTAACTTGCTGGCCTTCCTCCTGCTGGTGCATCCCCATCTGCG	430
Db	363	AGCTGGTGAECTGCTAACTTGCTGGCCTTCCTCCTGCTGGTGCATCCCCATCTGCG	422
Qy	431	CCCTCATCGTGCCTGGCCATCCTGCTGTCCTTGTGGAAACATTAAAAGGGTTATT	490
Db	423	CCCTCATCGTGCCTGGCCATCCTGCTGTCCTTGTGGAAACATTAAAAGGGTTATT	482
Qy	491	TCAAATCAAATGACAGTGAACCTTGGTCACTGATGGGAAGCTCGAGTGCCTGGTGT	550
Db	483	TCAAATCAAATGACAGTGAACCTTGGTCACTGATGGGAAGCTCGAGTGCCTGGTGT	542
Qy	551	TTCCTGTAATACAGTTATTATGAGAACACAGGGCGCCCTCTGCCCCCAGCCAGT	610
Db	543	TTCCTGTAATACAGTTATTATGAGAACACAGGGCGCCCTCTGCCCCCAGCCAGT	602
Qy	611	CCACTCCAGCCTGGACACCGAGAGCTCCTTCAGAGGACCAGAGTCACAGGAACACAA	670
Db	603	CCACTCCAGCCTGGACACCGAGAGCTCCTTCAGAGGACCAGAGTCACAGGAACACAA	662
Qy	671	GCACCTGCATGAACATCACTCACAGCCAGTGTCAAATTCTGCCCTACCACAGCACGTTG	730
Db	663	GCACCTGCATGAACATCACTCACAGCCAGTGTCAAATTCTGCCCTACCACAGCACGTTG	722
Qy	731	CACCTCTCTGCCAATTGTCAAAACATGGACATGGAGAAGTCCTCAAGTTCTCACGT	790
Db	723	CACCTCTCTGCCAATTGTCAAAACATGGACATGGAGAAGTCCTCAAGTTCTCACGT	782
Qy	791	ACCTCCATGCCCTCAGTGCTATCACATATCCTGCTTCGGCTGTAGCCTGCCCTCC	850
Db	783	ACCTCCATGCCCTCAGTGCTATCACATATCCTGCTTCGGCTGTAGCCTGCCCTCC	842
Qy	851	CTGAGTGCCTGTTGATGGCGATGACAGGCGATGGTCTTACCCGTAGATCTTCTGTG	910
Db	843	CTGAGTGCCTGTTGATGGCGATGACAGGCAAGGTCTTACCCGTAGATCTTCTGTG	902
Qy	911	AGGCTGCAAAAGAAGGATGCGAATCTGCTGGGAATGGTAACCTCTGGCCGGATT	970
Db	903	AGGCTGCTAAAGAAGGATGCGAATCTGCTGGGAATGGTAACCTCTGGCCGGATT	962
Qy	971	CCCTCAGATGCTCTCAGTTAGGGACCACACTGAGACTAACAGCAGTGTCAAGAAAGAGCT	1030
Db	963	CCCTCAGATGCTCTCAGTTAGGGACCACACTGAGACTAACAGCAGTGTCAAGAAAGAGCT	1022
Qy	1031	GCTTCTCACTGCAGCAGGAACATGGAAAGCAATCACTCTGGGAGGGGGCGAGAGCTTCC	1090
Db	1023	GCTTCTCACTGCAGCAGGAACATGGAAAGCAATCACTCTGGGAGGGGGCGAGAGCTTCC	1082
Qy	1091	TGTGTACCAGCGGGCTCTCGCTCCCCAAGAAGCTGCAGTGTAAACGGCTATAATGACTGTG	1150
Db	1083	TGTGTACCAGCGGGCTCTCGCTCCCCAAGAAGCTGCAGTGTAAACGGCTATAATGACTGTG	1142
Qy	1151	ATGACTGGAGCGACGAGGCGATTGCAACTGCAGCAAGGATGTTCACTGTGGCACAG	1210
Db	1143	ATGACTGGAGCGACGAGGCGATTGCAACTGCAGCAAGGATGTTCACTGTGGCACAG	1202
Qy	1211	GCAAGTGCCTCCACTACAGCCTCTGTGTGATGGTACGATGACTGTGGGACCCGAGTG	1270
Db	1203	GCAAGTGCCTCCATTACAGCCTCTGTGTGATGGTACGATGACTGTGGGACCTGAGTG	1262
Qy	1271	ACGAGCAAAACTGTGATTGTAATCTCACAAAGAGCATCGCTGTGGAGATGGCGCTGCA	1330
Db	1263	ACGAGCAAAACTGTGATTGTAATCTCACAAAGAGCATCGCTGTGGAGATGGCGCTGCA	1322
Qy	1331	TTGCGGCTGAGTGGGTGTGCGATGGGACCATGACTGTGGACAAGTCTGATGAGGTCA	1390

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Db	1323	TTGCGGCTGAGTGGGTGTGCGATGGGGACCATGACTGTGTGACAAGTCTGATGAGGTCA	1382
Qy	1391	ACTGCTTGTACAGCCAGGGCCTGGTGAATGCACAAGTGGACAGTCATCCCTAGCA	1450
Db	1383	ACTGCTTGTACAGCCAGGGCCTGGTGAATGCAGAAAGTGGACAGTCATCCCTAGCA	1442
Qy	1451	CCTTCCAGTGTGATGGGACGAAGACTGTAAGGATGGGAGTGACGAGGAGAACTGCAGTG	1510
Db	1443	CCTTCCAGTGTGATGGGACGAAGACTGTAAGGATGGGAGTGACGAGGAGAACTGCAGTG	1502
Qy	1511	ACAGTCAGACGCCATGTCCAGAAGGAGAACAGGGATGCTTGGCAGTCCCTGCCTCGAAT	1570
Db	1503	ACAGTCAGACGCCATGTCCAGAAGGAGAACAGGGATGCCTTGGCAGTCCCTGCCTCGAAT	1562
Qy	1571	CCTGTGCTGGTAGCTCTGTGTGACTCAGACAGCAGCCTGAGTAACTGCAGTCATGTG	1630
Db	1563	CCTGTGCTGGTAGCTCTGTGTGACTCAGACAGCAGCCTGAGTAACTGCAGTCATGTG	1622
Qy	1631	AGCCCACATTTGAACTCTGCATGAATTGCTCTACAACCATACACATTATCCAATT	1690
Db	1623	AGCCCACATTTGAACTCTGCATGAATTGCCCTACAACCATACACATTATCCAATT	1682
Qy	1691	ACCTTGCCACAGAACCTCAAAGGAAGCGTCCATCAGCTGGGAGTCATCCCTTCCCTG	1750
Db	1683	ACCTTGCCACAGAACCTCAAAGGAAGCGTCCATCAGCTGGGAGTCATCCCTTCCCTG	1742
Qy	1751	CCCTTGACAAACCAACTGTTACAAATACCTCATGTTTCGCTTGCACCATTGGTTC	1810
Db	1743	CCCTTGACAAACCAACTGTTACAAATACCTCATGTTTCGCTTGCACCATTGGTTC	1802
Qy	1811	CAAAGTGTGATGTGAATACAGGACAACGCATCCGCCTTGCAGACTCCTGTGTGAGCACT	1870
Db	1803	CAAAGTGTGATGTGAATACAGGACAACGCATCCGCCTTGCAGACTCCTGTGTGAGCACT	1862
Qy	1871	CCAAAGAGCGCTGTGAGTCTGTTGGGATCCTGGCCTGCAGTGGCCTGAAGACACCG	1930
Db	1863	CCAAAGAGCGCTGTGAGTCTGTTGGGATCCTGGCCTGCAGTGGCCTGAAGACACCG	1922
Qy	1931	ACTGCAATCAATTCCAGAGGAAGTTCAGACAATCAAACCTGCCTCCTGCCCAATGAAG	1990
Db	1923	ACTGCAATCAATTCCAGAGGAAGTTCAGACAATCAAACCTGCCTCCTGCCCAATGAAG	1982
Qy	1991	ATGTGGAAGAATGCTCTCGAGTCACTTCAAATGCCGCTGGGACGATGCGTTCTGGGCT	2050
Db	1983	ATGTGGAAGAATGCTCTCGAGTCACTTCAAATGCCGCTGGGACGATGCGTTCTGGGCT	2042
Qy	2051	CCAGGAGATGTGACGCCAGGCTGACTGTGACGACAGTCAGTGACGAGGAGAACTGTGGTT	2110
Db	2043	CCAGGAGATGTGACGCCAGGCTGACTGTGACGACAGTCAGTGACGAGGAGAACTGTGGTT	2102
Qy	2111	GTAAAGAGAGAGCTTGGGATGTCATTAATAAGCAATGTCTGAAGCATACTTAA	2170
Db	2103	GTAAAGAGAGAGCTTGGGATGTCATTAATAAGCAATGTCTGAAGCATACTTAA	2162
Qy	2171	TCTGCGATGGGTTCCAGATTGTCAGACAGTATGGATGAAAAAAACTGCTCATTGCC	2230
Db	2163	TCTGCGATGGGTTCCAGATTGTCAGACAGTATGGATGAAAAAAACTGCTCATTGCC	2222
Qy	2231	AAGACAATGAGCTGGAATGTGCCAACATGAGTGTGCGCGTGCACCTTGGTGCACG	2290
Db	2223	AAGACAATGAGCTGGAATGTGCCAACATGAGTGTGCGCGTGCACCTTGGTGCACG	2282
Qy	2291	GATGGGTCGACTGCTCAGACAGTTCTGATGAATGGGCTGTGTGACCCCTCTAAATG	2350
Db	2283	GATGGGTCGACTGCTCAGACAGTTCTGATGAATGGGCTGTGTGACCCCTCTAAATG	2342

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Qy	2351	GGAACCTCCCTCATGCTGACTGTTACAAATCTGCAAAGAACACCACGTGTGCTG	2410
Db	2343	GGAACCTCCCTCATGCTGACTGTTACAAATCTGCAAAGAACACCACGTGTGCTG	2402
Qy	2411	ACGGCTGGCGGGAGACGTTGAGTCAGCTGGCCTGCAAGCAGATGGGTTAGGAGAACCGT	2470
Db	2403	ACGGCTGGCGGGAGACGTTGAGTCAGCTGGCCTGCAAGCAGATGGGTTAGGAGAACCGT	2462
Qy	2471	CTGTGACCAAGCTGATCCCAGGAAGGCCAGCAGTGGCTGAGGTTGACCCAACT	2530
Db	2463	CTGTGACCAAGCTGATCCCAGGAAGGCCAGCAGTGGCTGAGGTTGACCCAACT	2522
Qy	2531	GGGAGAATCTCAATGGGAGCACCTGCAGGAGCTGCTGGTATACAGGCACCTGCCAA	2590
Db	2523	GGGAGAATCTCAATGGGAGCACCTGCAGGAGCTGCTGGTATACAGGCACCTGCCAA	2582
Qy	2591	GCAGAAAGTGAGATTCCTCTGTGCTCCAAGCAAGACTGTGGCCGCCCTGCTGCC	2650
Db	2583	GCAGAAAGTGAGATTCCTCTGTGCTCCAAGCAAGACTGTGGCCGCCCTGCTGCC	2642
Qy	2651	GAATGAACAAGAGGATCCTGGGGTCGGACTAGTCGTCCTGGAGGTGGCGTGGCAGT	2710
Db	2643	GAATGAACAAGAGGATCCTGGGGTCGGACTAGTCGTCCTGGAGGTGGCGTGGCAGT	2702
Qy	2711	GCTCTCTGCAGAGTGAAACCCAGTGGACATATCTGGCTGTGCTCATGCCAAGAAGT	2770
Db	2703	GCTCTCTGCAGAGTGAAACCCAGTGGACATATCTGGCTGTGCTCATGCCAAGAAGT	2762
Qy	2771	GGGTCCCTGACAGTTGCCATTGCTTGAAGGGAGAGAACGCTGATGTTGGAAAGTGG	2830
Db	2763	GGGTCCCTGACAGTTGCCATTGCTTGAAGGGAGAGAACGCTGATGTTGGAAAGTGG	2822
Qy	2831	TATTTGGCATAAACACCTGGACCATCCATCAGGCTTCATGCAGACCCGCTTGTGAAGA	2890
Db	2823	TATTTGGCATAAACACCTGGACCATCCATCAGGCTTCATGCAGACCCGCTTGTGAAGA	2882
Qy	2891	CCATCCTGCTACATCCCCGTTACAGTCGAGCAGTGGTAGACTATGATATCAGCGTGGTGG	2950
Db	2883	CCATCCTGCTACATCCCCGTTACAGTCGAGCAGTGGTAGACTATGATATCAGCGTGGTGG	2942
Qy	2951	AGCTGAGCGATGATATCAATGAGACAAGCTACGTCAGACCTGCTGCCACCCAGTCCGG	3010
Db	2943	AGCTGAGCGATGATATCAATGAGACAAGCTACGTCAGACCTGCTGCCACCCAGTCCGG	3002
Qy	3011	AGGAGTATCTAGAACAGATACTGACTGCTACATCACAGGCTGGGCCACATGGCAATA	3070
Db	3003	AGGAGTATCTAGAACAGATACTGACTGCTACATCACAGGCTGGGCCACATGGCAATA	3062
Qy	3071	AAATGCCCTTAAGCTGCAGGAGGGAGAGGTCCGCATTATCCCTCTGGAGCAGTGCCAGT	3130
Db	3063	AAATGCCCTTAAGCTGCAGGAGGGAGAGGTCCGCATTATCCCTCTGGAGCAGTGCCAGT	3122
Qy	3131	CCTATTGACATGAAGACCATACCAATCGGATGATCTGTGCTGGCTATGAGTCTGGCA	3190
Db	3123	CCTATTGACATGAAGACCATACCAATCGGATGATCTGTGCTGGCTATGAGTCTGGCA	3182
Qy	3191	CCGTGGACTCCTGCATGGGAGACAGCGGTGGCCTCTGGTTGTGAACGACCCGGAGGAC	3250
Db	3183	CCGTGGACTCCTGCATGGGAGACAGCGGTGGCCTCTGGTTGTGAACGACCCGGAGGAC	3242
Qy	3251	AGTGGACATTATTGGTTAACATGCTGGGCTCCGCTGCTTTCCAAAGTTCTGGGAC	3310
Db	3243	AGTGGACATTATTGGTTAACATGCTGGGCTCCGCTGCTTTCCAAAGTTCTGGGAC	3302
Qy	3311	CTGGAGTGTACAGCAATGTGCTTACTTGTGGCTGGATTGAAAGACAATATATATCC	3370
Db	3303	CTGGAGTGTACAGCAATGTGCTTACTTGTGGCTGGATTGAAAGACAATATATATCC	3362

Qy 3371 AGACCTTCTCCAAAAGAAATCCAAGGATAATCAGAGACTTGTGGGAAACCTACATG 3430  
Db |||||||  
Db 3363 AGACCTTCTCCAAAAGAAATCCAAGGATAATCAGAGACTTGTGGGAAACCTACATG 3422  
Qy 3431 GAGAATGACCCCTCTGAAACAGAACAGCTGTGCCAGAGCTGTACGAACAGCGTTCA 3490  
Db |||||||  
Db 3423 GAGAATGACCCCTCTGAAACAGAACAGCTGTGCCAGAGCTGTACGAACAGCGTTCA 3482  
Qy 3491 CGGACAGGACGCTCACATGCACCGCAAGATCTCCTGTTGTGCTAGATGAGTTTAC 3550  
Db |||||||  
Db 3483 CGGACAGGACGCTCACATGCACCGCAAGATCTCCTGTTGTGCTAGATGAGTTTAC 3542  
Qy 3551 TCAGG 3555  
Db |||||  
Db 3543 TCAGG 3547

***Double Patenting***

13. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the “right to exclude” granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory

double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

14. Claims 2, 18, 19 and 23-25 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-2 of copending Application No. 12/110111. Although the conflicting claims are not identical, they are not patentably distinct from each other because the claims in the '111 Application read upon a method of selecting dopaminergic neuron progenitor cells comprising contacting a cell sample with a polynucleotide probe for Lpr4 and further comprising culturing said cells and selecting postmitotic cells using a postmitotic biomarker.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented, however, a Notice of Allowability has been mailed on May 27, 2010 but issue fees have not been paid.

### ***Conclusion***

15. No claim is allowed.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to STACEY MACFARLANE whose telephone number is (571)270-3057. The examiner can normally be reached on M-R 5:45 to 3:30, TELEWORK-Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jeffrey Stucker can be reached on (571) 272-0911. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Stacey MacFarlane  
Examiner  
Art Unit 1649

/Daniel E Kolker/  
Primary Examiner, Art Unit 1649  
June 28, 2010